

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

APPELLANT'S REPLY BRIEF ON APPEAL

Appellants: Tsuyonobu Hatazawa et al.)	Group Art Unit: 1745
)	
Docket No. 9792909-4673)	Examiner: J. Crepeau
)	
Application No. 09/718,767)	
)	
Filed: November 22, 2000)	
)	
Title: NONAQUEOUS ELECTROLYTE)	
BATTERY)	

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Dear Sir:

Appellants respectfully submit this Reply Brief under 37 C.F.R. § 41.41 in response to the Examiner's Answer mailed on January 21, 2009. The Commissioner is hereby authorized to charge any deficiency in fees associated with this communication or credit any overpayment to Deposit Account No. 19-3140. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

By: /David R. Metzger/

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III. STATUS OF CLAIMS:

Claims 1, 4, 5 and 8-11 are pending and under consideration in the application. Claims 2, 3, 6 and 7 have been cancelled.

The present appeal is directed to claims 1,4, 5 and 8-11, which were finally rejected in an Office Action dated July 1, 2008.

A copy of claims 1-11 is appended hereto as the Claims Appendix.

The status of the claims on appeal is as follows:

A) Claims 1, 5 and 8-11 stand rejected under 35 U.S.C. §103(a) as being unpatentable over *Nakane et al.* (EP 0895296), *Chaloner-Gill* (U.S. Pat. No. 5,445,856), *Bullock et al.* (U.S. Pat. No 5,219,676) and *Gozdz et al.* (U.S. Pat. No. 5,607,485).

B) Claim 4 stands rejected under 35 U.S.C. §103(a) as being unpatentable over *Nakane et al.*, *Chaloner-Gil*, *Bullock et al.*, *Gozdz et al.* and *Wedlake*.

VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL:

The following ground of rejection is to be reviewed on appeal:

Whether claims 1, 4, 5 and 8-11 are patentable under 35 U.S.C. §103(a) over *Nakane et al.* (EP 0895296, *Chaloner-Gill* (U.S. Pat. No. 5,445,856), *Bullock et al.* (U.S. Pat. No. 5,219,676) and *Gozdz et al.* (U.S. Pat. No. 5,607,485).

Whether claim 5 is separately patentable over *Nakane et al.*, *Chaloner-Gill* , *Gozdz et al.* and *Bullock et al.*

Whether claim 4 is separately patentable over *Nakane et al.*, *Chaloner-Gill*, *Bullock et al.*, *Gozdz et al.* and *Wedlake*.

VII. ARGUMENT:

In the Examiner's Answer of January 21, 2009, the Examiner alleges that although *Nakane* only discloses a powder which is capable of absorbing water, the powder is capable of absorbing steam which is the gaseous form of water. However, the components and amount of gas occurring in the battery element are dependent on the kinds and amounts of the electrolyte salt and the electrolyte solvent used for a gel electrolyte layer. Therefore, the kind and amount of the gas absorbable material inserted is dependent on the configuration of the electrolyte and the amount of the reaction occurring in the battery.

Nakano fails to disclose or even fairly suggest amounts or types of absorption material to include in the battery element which would result in the absorption of gases. Instead, *Nakano* discloses adjusting the amounts and types of absorption materials to add to the battery which would result in the absorption of water in the battery left over from manufacturing. See, EP 0895296, Paras. [0007] & [0017]. Specifically, Nakano states:

Generally, sealed non-aqueous electrolyte cells are apt to be damaged by moisture but it is difficult to completely **exclude moisture from the cells in the fabrication process**. Therefore, a finished product often includes water which was originally contained, for example, in an organic solvent (a component of the electrolyte) or derived from moisture on the cell members. Water entrapped in the cell reacts with the electrolyte salt and the active material and becomes a direct cause of deterioration in the performance of the cell. Hydrofluoric acid or the like, which is a product of the reaction between cell components and water entrapped within the cell, acts on the sealing parts of the casing, decreasing adhesive strength and therefore the degree of sealing in the parts. This causes a vicious circle in which the decreased degree of sealing allows penetration of moisture and oxygen from the outside of the cell and the penetrating moisture causes a further decrease in the degree of sealing. Finally, there occurs leakage, resulting in the expiration of the cell's life. See, EP 0895296, Para. [0007].

As such, *Nakane* discloses inserting some absorption material for the purpose of absorbing moisture remaining in the battery after manufacturing and not gas resulting from the configuration of the electrolyte and the amount of the reaction occurring in the battery. Therefore, while it is possible the absorption material in *Nakane* would absorb some steam,

the absorption material disclosed in *Nakane* could not produce the same battery as claimed because *Nakane* fails to disclose or even suggest the types and amounts of gas absorption materials to add to the battery to absorb gases occurring in the battery based on the configuration of the electrolyte and the amount of the reaction occurring in the battery. These would be in addition to any moisture left over from the manufacturing process.

As the Applicants discovered, absorbing gases occurring in a battery element due to an abnormal environmental change, such as an abnormal temperature rise, prevents deformation of the battery caused by swelling of the outer covering member. Since *Nakane* is only directed at the absorption of some water remaining in the battery after manufacturing, the battery disclosed in *Nakane* would not be capable of absorbing gas in a battery which would prevent swelling due to gases resulting from the configuration of the electrolyte and the amount of the reaction occurring in the battery.

In addition to the above, Applicant's refer to the arguments made in the Appeal Brief filed on November 4, 2008, in response to the remaining arguments made in the Examiner's Answer. Applicant respectfully re-submits the rejection is wrong, and requests that it be reversed.

Respectfully submitted,

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